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United States Department of the Interior

FISH AND WILDLIFE SERVICE

IN REPLY REFER TO:

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July 1, 1997

Mr. Lester S. Snow
Executive Director
CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, California 95814

Subject: Comments on the Draft Programmatic EIR/EIS Environmental Impacts Technical Reports--Fisheries and Aquatic Resources and Vegetation and Wildlife Resources

Dear Mr. Snow:

The Service provides the following general and specific comments concerning the Draft Programmatic EIR/EIS Environmental Impacts Technical Reports--Fisheries and Aquatic Resources and Vegetation and Wildlife Resources. These comments were transmitted informally to Bellory Fong June 13, 1997.

General Comment--

The documents use "beneficial actions" in the Ecosystem Restoration Program Plan (ERPP) to balance out the adverse effects of the three alternatives. Since the ERPP targets specific habitat and species for restoration, other species and habitats are not restored and may be adversely affected by the ERPP. In this case, the adverse effects of the three alternatives would be compounded by the effects of the ERPP. Additionally, the habitat restoration proposed in the ERPP is experimental and may not provide significant restoration for many years, depending on the adaptive management protocols, or not at all if the methodology completely fails.

Specific Comments--

Fisheries and Aquatic Resources

Page 5: The use of the term "habitat" is confusing. Habitat is the physical and biological components (*i.e.*, rocks, water, fish, frogs). Ecosystem is the energy exchanges that occur in a habitat (*i.e.*, a frog jumping off a rock into the water and being eaten by a fish). When habitat quality or connectivity are discussed, ecosystem should be used since the energetic aspects go beyond the definition of habitat. Clearly define "habitat" and "ecosystem" at the beginning of the discussion and then consistently use the terms.

Page 13, Table 4: Delta smelt temperature criteria are available. Joe Cech and Tina Swanson at UC Davis have developed these criteria. For example, changes in water temperatures greater than 7° C adversely affect delta smelt

and temperatures greater than 25° C may be lethal to delta smelt. Information similar to Figures 3 and 4 could be graphed for delta smelt.

Page 23: Give a list of the common programs including the beneficial actions included in the ERPP. Include data gaps on how restoration actions will benefit particular species. For example, the most suitable method for creation or enhancement of shallow-water habitat is not known or what benefits will accrue from creation or enhancement of shallow-water habitat. Do not assume that delta smelt or other species will benefit from shallow water habitat creation or enhancement since studies have not been done that demonstrate this benefit or quantify the increase in recruitment.

Is shallow water hab. creation in the Δ smelt recovery plan?

Serious stuff! Kind of limits adapt. mgt.

Page 25: Benefits of shallow-water habitat creation or enhancement to diversity of "habitat" if interpreted to mean diversity of species usage will be dependent on geographic location and the presence of such stressors as contaminants, diversions, and flows that move aquatic organisms to areas within the influence of diversions. Shallow-water habitat created in the south Delta close to the Federal and State export pumps would be adverse to productivity of many fish under current operating conditions.

I think we acknowledge!

ok? What's the point?

Page 27: The statement, "the adverse impact (of Alternatives 1B and 1C), however, would be minimal compared to the beneficial impact of the common program", cannot be supported by the information presented in the text. Please assess the common programs with each habitat attribute mentioned on page 5 for the beneficial effect. Please do not assume benefits.

Page 27: **Species Specific Impacts, Habitat:** The statement, "Delta resident species would benefit the most, including delta smelt,..." cannot be substantiated. This statement should read, "Delta resident species **may** benefit the most, including delta smelt, .. if studies indicate the efficacy of restoration actions in improving the ecosystem".

What is this? Does the Service believe that restoration actions will not benefit the ecosys

Page 27: **Species Specific Impacts, Diversion:** The statement, "the installation of new and improved fish screens ... will reduce fish entrainment and associated mortality at these facilities" should be modified. Change to: "the installation of new and improved fish screens ... will reduce fish entrainment and associated mortality for some fish species at these facilities".

Page 28, Table 7. The "+" should be defined. Does this mean that these alternatives have a positive effect on the fish species or that populations of these fish species will increase.

Page 31, **Habitat Quality:** "A discussion of the common program is provided under Alternative 1". Add that although the goal of the common program is to improve target resource areas, these improvements do not affect species and their habitats equally and that in some cases there are adverse affects to aquatic species and habitats that result from the common program. This is important when comparing the effects of the alternatives on various habitats and species since the common program may be an additional adverse effect to these habitats and species.

Vegetation and Wildlife Resources

The Service believes that restoration is not an exact science for any community type, and failures are as frequent or more frequent than successes. Success is dependent on a number of factors and is both community and site specific. Successful methods for one community at one site may be unsuccessful for the same community at a different site. Assuming that a restoration will be a success is not justified. Any restoration effort takes considerable human effort and occurs over a number of hard working years. Monitoring, success criteria, and adaptive management strategies need to be a component of any restoration scheme CALFED adopts.

The success of "natural community" restoration in a timely fashion to adequately balance destruction of plant communities caused by Phase II alternatives is difficult to predict. It will depend on the specific community and site, but may not occur due to most ecosystems being adversely affected with a host of non-native organisms. If natural re-establishment is expected to take place without human intervention, success of natural restoration will be considerably lengthened.

Natural reestablishment of riparian communities may be more successful than natural reestablishment for other communities, but exotics could be a problem. The communities to be reestablished will be important in determining the level of success with natural communities more difficult than "weedy" communities. Some species (*e.g.*, some rare ones with fragmented ranges) may not be capable of dispersing to most sites. A reason some exotics are so invasive may be their ability to rapidly disperse to new sites. Assuming natural reestablishment of riparian communities will be adequate is generally not justified.

Treating exotic plants with herbicides may shift a community away from exotics but will need to be applied into perpetuity to maintain the restored community. Such applications of herbicides are not considered to be automatic fixes for ecosystem changes.

If you have any questions or concerns about the above, contact Robert Pine at (916) 979-2725 or Jean Elder at (916)979-2130.

Sincerely,

Joel A Medlin

for Wayne S. White
Field Supervisor

cc: ARD, Klamath and California Ecoregions, Region 1, Portland, OR
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